CLAIMS

1. A method of filling a gas capsule comprising a hollow body portion and a cap assembled thereto and including a stem providing a filling orifice, including the steps of providing within the capsule prior to assembly of the body portion and the cap portion a stopper member that is loose within the capsule, filling the capsule with gas under pressure, causing the stopper member to adopt a position between the body of the capsule and the filling orifice to obstruct the path of gas from the capsule, and releasing the gas pressure at the orifice of the capsule in order to cause the stopper member to be forced under the pressure of gas within the capsule into gas tight engagement with a portion of the cap member defining a passage to the orifice of the capsule.

2. A method according to claim 1, wherein said passage is so formed that it includes within said stem a bore having a constricted portion of reducing diameter, and said stopper member is formed as a ball of resilient material so dimensioned that under the said pressure of gas it is forced into said bore and trapped in fluid tight engagement with the said constricted portion.

3. A method according to claim 2, wherein said bore is provided with a first part of wider diameter adjacent said body portion of said capsule and a second part of narrower diameter adjacent said filling orifice and wherein said constricted portion comprises a shoulder joining said wider and narrower parts and forming a seating for engagement by said ball under said gas pressure.

4. A method according to claim 2, wherein said bore is provided with a first part of wider diameter adjacent said body portion of said capsule and a second part of narrower diameter adjacent said filling orifice and wherein said constricted portion comprises a tapered part of said bore extending between said wider and narrower parts, whereby under the pressure of said gas the said resilient ball is forced along the tapered part and compressed to a point at which it becomes trapped within the bore.

5. A method according to any one of claims 1-5, wherein said body portion and said cap are formed of aluminium or aluminium alloy.

6. A method according to claim 2 or any one of claims 3-5 as appended thereto wherein said ball is formed of silicone rubber.

7. A method according to claim 2 or any one of claims 3-6 as appended thereto, wherein after entry of said ball into said bore, the said stem is permanently deformed inwardly to constrict the bore between the body of the capsule and the ball in order to trap the latter within the stem of said cap.

8. A method according to any one of claims 1-7, wherein after said release of gas pressure at the filling orifice of said stem, the tip of said stem is welded to close the orifice.

9. A method according to claim 8, wherein said welding step includes the steps of crimping the said stem between a first pair of crimping jaws immediately adjacent the orifice in order to flatten and close the latter, crimping the stem at a point spaced from said orifice between a second pair of crimping jaws, releasing the first pair of crimping jaws whilst the stem is located between said second pair of jaws and welding said orifice by directing a laser beam along the line formed by the flattened orifice.

10. A method according to any one of claims 1-9, wherein prior to said step of filling the capsule with gas under pressure, the capsule is first flushed with gas and then evacuated, said capsule being oriented with said filling orifice in an upward position during flushing and evacuation, whereby said stopper member is caused to rest loosely in the base of the capsule during the evacuation step.

11. A method according to any one of claims 1-10, wherein the stopper member is caused to adopt said position to obstruct the path of gas, under the influence of gravity, by orienting said capsule with the filling orifice in a downward position.

12. A filled gas containing capsule produced by the method of any one of claims 1-9.